



A Case Study on Vedhya and Avedhya Siras of Lower Limb by Vein Finder Machine and Cadaveric Study in Ayurveda W.S.R. To Sushruta Samhita

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ABSTRACT

Ayurveda is the holy ancient science of health science. In Samhita text, brief description of Sharira and its anatomical structures described very manually. Our Acharyas has described the Sira in Ancient Samhita. According to Acharya Sushruta has described about Siras on Shareerasthan Adhyay 7 Siravarnavibhaktisharira. Sushruta has described among Sira, Dhamani and Srotas classify. Sushruta has given 4 types of Siras- Arun, Neela, Lohita, Sweta. These are relatively described doshas are Vata, Pitta, Kapha and Rakta. We can describe Sira is the vein, which carry deoxygenated blood towards the heart from all over body. The blood from Siras by flow velocity called "Sarankriya". Total 700 Siras in our body. Siras are having two types- Vedhya and Avedhya. Vedhya siras can be punctured for curing the diseases. Avedhya siras cannot be punctured. Vedhya siras are having 602 in no. and Avedhya siras are having 98 in no. Out of total 700 Siras, moola Sira are having 40 in no., which are divided into 4 sub-groups. These are called and these are 10,10,10,10 in no. respectively. Sira are derived Vedic term "hira". Mode of action of vein finder machine is the haemoglobin within the patient's blood absorbs the light creating a red pattern that can be seen on the surface. We examine puncturing and non-puncturing vein of lower limb of formaline fixed 2 cadavers and observed the structurally location and structure of vein and compare Sira with modern anatomical structure.

KEYWORDS-Sira, Vein, Sushruta, Lower limb, Vein finder machine, Cadaver.

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INTRODUCTION

The knowledge of *Rachana Shareera* is obligatory for the students of any technique of medicine. It is essential subject in pre-clinical studies. *Acharyas Sushruta* deserved a complete sthan (*Shareerasthan*) for the explanation of structural and functional entities of human body. But some of the concepts are not still clear as per the modern science. According to *Charaka*, the *Sira* as "*Saranatsira*" [1] which means a structure with continue flow of blood. The *Sushruta Samhita* is one of the 3 appreciable *brihatrayi* of *Ayurveda* for surgery. *Sira* are described in *Shareera Sthan* in *Sushruta Samhita*. *Sira* are derived Vedic term *hira*. The term *hira* are described the deoxygenated blood carrying channel toward the heart from all over body. *Sushruta* was first teacher who describe the method of dissection of human cadaver and given the importance of dissection of human anatomy. According to *Sushruta Samhita*, *Sira* is beginning from nabhi [2] (umbilical) & they move upward, downward & oblique direction like venules in leaf. *Sira* is one of the structures which have describes by *Charaka* and *Sushruta Samhita*. *Acharya Sushruta* described *Shareera* and other structure accurately after performing *Mritasamshodha nvidhi*. *Mritasamshodhan* knowledge helps the *Vaidya* in all perspective of *Chikitsa*. *Siravedhan* can be called as "*Chikitsardha*". *Sira* is contraindicated for venesection termed as *Avedhya Sira* so physician and surgeon should be performed this procedure which leads to morbidity or death. *Vedhya Siras* is indicated for venesection which can not cause any harm to the body [3-5].

As a garden or cereal field is prepared wet by water carrying big & small channels, similarly the *Sira* by their contraction & dilation quality supply towards the body [2]. The blood vessels of the body make up a clodes system of tubes, that carry blood from heart to the all over the body & then return to heart [3].

The *Sira* which are preferable for puncturable (*VedhyaSiras*) are 602 in number. The *sira* which should not be puncturable (*Avedhya Siras*) are 98 in number. Anomaly of *Sira* [4] are when exaggerated occupied its own *sira*, it causes various disorders of *Vata*. *Vata* moving in its own *Sira* produces *kriyanamapratighatam* and *amohambuddhikarmanam*. *Pitta* moving in its own *Sira* produces *bhrajishnutam*, *annaruchi*, *agnidiptam*, *arogatam*. When exaggerated *Pitta* in its own *siras*, it causes various disorders of *Pitta*. *Kapha* moving in its own *Sira* produces *snehamangesu*, *sandhinamsthairyam*, *balamudirnatam*. When exaggerated *Kapha* in its own *sira*, it causes various disorders of *Kapha*. *Rakta* moving in its own *Sira* produces *dhatunampuranam*, *varnam*, *sparshgyanamamsayam*. When exaggerated *Rakta* in its own *Sira* produces of *Rakta* disorder. No *Sira* carrying *Vata* or *Pitta* or *Kapha* alone and as such are known as carrying all. Even the aggravated *dosha* run united & diverted to faulty passage, so they are known as carrying all.

- *Sira* carrying *Vata* are filled with *Vayu* & having *Arun* colour [4].
- From *Pitta* they are hot & *Nila* colour.
- From *Kapha* are cold & *Shweta* colour & firm.
- From *Rakta* are moderately hot & cold and *Rohini* colour.

Vedhya Sira are 602 in number. *Vedhya Sira* are called as puncturable vein, as they are the vein which used in venepuncture. Venepuncture is known in surgery (*Shalya*) as half of the therapeutic procedure occupying applied enema in general medicine (*Kayachikitsa*). Many of disease which are treated by venepuncture and these are *Padadaha*, *Padaharsha*, *Cippa*, *Visarpa*, *Vatarakta*, *Vatakantaka*, *Vicharchika*, *Pangu*, *Padadari*, *Galaganda*, *Grudhrasi*. Nobody is confidently trained in vein as they are unsteady like Fish by nature and change position like fish. So, these should be capture with carefully [5-8].

The importance of non-puncturable [13] (*Avedhya*) *Sira* are synonyms of vein or vessels, which should not be puncturing during venepuncture. If they are accidentally cut by chance, they produce serious illness by flow out blood and falling down blood pressure and disability and also produces death and their injury cause numbness/paralysis/necrosis of that organ or may cause death. Here are some discussions of *Avedhyasira* in lower extremities; *Jaladhara* is considered as great saphenous vein (discussed in *Ghanekar tika*). It is contraindicated for puncturing because great saphenous vein is principal vein of lower extremities and due to severe blood loss (fall down of blood pressure) there can be severity as like in upper extremities by cephalic vein. *Vitapa and katikatarun* [12-15] is the vein for gonads & the gluteal region by venesection of these may benecrosis of gonads and the gluteal muscles. *Vrihitis* is similarly as the femoral artery and femoral vein by venesection of this there may be complication of femoral nerve injury and lead to paralysis and blood loss and also occur death. *Lohitakhsasiras* is compared to the femoral artery and femoral vein in *Ghanekar Tika Samhita*. In Modern science, not properly expressed non puncturing vein and puncturing vein. But, in *Ayurveda Samhita* is briefly described puncturing and non-puncturing vein in *Sushruta Samhita*.

MATERIAL AND METHODS

SOURCE OF DATA-

LITERAL STUDY-

- All the available *Samhitas* of *Ayurveda* and other ancient and modern text of *Ayurveda*.
- Texts of allied medical sciences, anatomy, *Rachana Shariravigyana* etc.
- Journals, research papers, articles from different periodicals, and newspapers etc. and subject related information available on internet.
- The conceptual part will be based on the through observation, compilation.
- Importance of the matters collected from above sources.

OBSERVATION STUDY-

The study done in 2 cadaver and also 5 females with the help of vein finder machine.

Materials required-

Cadaveric dissection	Vein finder
Scalpel	Torniquet
Tooth forcep	Camera
Untoothforcep	Vein finder machine
Scissor	
Magnifying glass	
Apron	
Gloves	

Exclusion criteria -

- Cadaver with anomalies of lower limb.

- Volunteers younger than 20 years and older than 50 years age.
- Patients with systemic diseases like, carcinoma, H.I.V. etc.

Inclusion criteria -

- 2 cadaver without any deformity of irrespective of sex.
- Healthy volunteers between 20 to 50 years age group select.
- Written informed consent taken for this study and offering sufficient explanation about the study and its aim.

RESULT AND DISCUSSION

To detect and finds out anatomical structure and review of *Vedhya* and *Avedhya Sira* of lower extremity. To compare *Sira* with modern anatomical structure. To location and review structurally the *Vedhya* and *Avedhya Siras* on the premise of Cadaveric dissection and Vein finder. Exact location of *Sira* and Nearby structure of *Vedhya* and *Avedhya Sira* described very manually. Checking the vitality of *Siras* in relation to nearby structure for *Vedhan*. Difference between internal structure and in cross section; valvular structure is study in Cadaveric dissection. The superficial vein studied by vein finder machine. Portable device can help us to find the superficial vein properly. Importance of *Vedhya* and *Avedhya Sira*, their vitality, their locational value, their feasibility in venesection, their palpability, helpfulness in *vyadh* procedure etc. studied. Their anatomical knowledge is the basic purpose for venesection and treating diseases.



FIGURE NO.-1: STUDY ON VEIN FINDER MACHINE OF LOWER LIMB

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